Society of Gastroenterology Nurses and Associates, Inc.

POSITION STATEMENT

Statement on the Use of Sedation and Analgesia in the Gastrointestinal Endoscopy Setting

Disclaimer

The Society of Gastroenterology Nurses and Associates, Inc. (SGNA) assumes no responsibility for the practices or recommendations of any member or other practitioner, or for the policies and procedures of any practice setting. Nurses and associates function within the limitations of licensure, state nurse practice act, and/or institutional policy.

Definitions

For the purpose of this document, SGNA has adopted the following definitions:

Anesthesia Professional refers to an anesthesiologist, anesthesiologist assistant or certified registered nurse anesthetist (American Society of Anesthesiologists [ASA], 2010).

Deep Sedation refers to "a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. Reflex withdrawal is NOT considered a purposeful response. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained" (ASA, 2009a).

Gastroenterology (GI) Registered Nurse refers to an advanced practice registered nurse (APRN) and a registered nurse (RN).

General Anesthesia refers to "a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of the neuromuscular function. Cardiovascular function may be impaired "(ASA, 2009a).

Minimal Sedation (Anxiolysis) refers to "a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected" (ASA, 2009a).

Moderate Sedation/Analgesia refers to "a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway and spontaneous ventilation is adequate. Cardiovascular function is usually maintained" (ASA, 2009a).

Monitored Anesthesia Care (MAC) refers to a specific anesthesia service in the care of a patient undergoing a diagnostic or therapeutic procedure. It does not describe the continuum of depth of sedation (ASA, 2009a).

Nonanesthesiologist-administered propofol (NAAP) refers to the administration of propofol under the direction of a physician who is not trained as an anesthesiologist, where it is given as a single agent or in combination with other medications. The goal is moderate to deep sedation (American Society for Gastrointestinal Endoscopy [ASGE], 2009).

Nurse-administered propofol sedation (NAPS) refers to the administration of propofol under the direction of a physician who has not been trained as an anesthesiologist, where it is given as a single agent. The goal is deep sedation (ASGE, 2009).

Patient Care in the Gastrointestinal Endoscopy Unit refers to the pre-procedure, intra-procedure, and post-procedure care of the patient undergoing gastrointestinal endoscopy regardless of the setting.

Sedation and analgesia refers to a continuum of states ranging from minimal sedation (anxiolysis) through general anesthesia (ASA, 2009b).

Background

Sedation is a drug-induced depression in the level of consciousness that exists on a continuum ranging from minimal sedation through moderate, then deep, and finally general anesthesia (Fanti & Testoni, 2010). Sedatives and analgesics are usually given during endoscopic procedures to relieve anxiety, decrease pain and discomfort, and diminish the memory of the event. Optimal sedation requires consideration of patient and procedural factors that may influence the level of sedation. These factors include age, weight, medical history, current medications, airway assessment, anxiety, pain tolerance, length of procedure, and/or invasiveness of the procedure (Vargo et al., 2012).

Moderate sedation is the standard for gastrointestinal endoscopy, but it is not without risk. Moderately sedated patients are able to respond to verbal commands, maintain a patent airway and ventilation, and usually maintain cardiovascular function. Patients are screened in advance in order to identify those at risk for complications. Individual responses to drugs can inadvertently lead to a deeper than desired level of sedation; therefore, the individual who administers moderate sedation must be able to recognize the signs and symptoms of progression into deep sedation (ASGE, 2008a; Amornyotin, 2013; Fanti & Testoni, 2010).

The role of the GI registered nurse in the use of sedation and analgesia continues to evolve. For example, a current controversy involves nurse-administered propofol sedation (NAPS) and nonanesthesiologist-administered propofol (NAAP). Propofol is an ultra-short acting sedative, with amnesic but not analgesic effects, used to achieve deep sedation, and has no reversal agent (ASGE, 2008a). Multiple studies support the use of NAPS and NAAP for a select group of patients undergoing gastroenterology procedures

(Heuss, Schnieper, Drewe, Pflimlin, & Beglinger, 2003; Rex, 2002; Rex, Heuss, Walker, & Qi, 2005; Slagelse, Vilmann, Hornslet, Hammering, & Mantoni, 2011).

Specialized training is required of those planning to administer propofol and monitor patients (ASGE, 2008a, 2009; Regula & Sokol-Kobielska, 2008). The specialized training must include Advanced Cardiac Life Support (ACLS) certification, prior training in moderate sedation, and successful completion of a propofol sedation curriculum. A propofol sedation training curriculum should have four components: didactic training, airway workshop, simulation training, and preceptorship (ASGE, 2009). There should be periodic retraining in airway management and evaluation of performance for patient safety (ASGE, 2009, 2012; Regula & Sokol-Kobielska, 2008; Vargo et al., 2012).

The American Society of Anesthesiologists (2010) asserts that only anesthesia professionals and non-anesthesiologist sedation practitioners with specialized training should give deep sedation because of the possibility that the patient could inadvertently progress into general anesthesia. The Centers for Medicare and Medicaid Services (CMS) (2011) have identified those health care providers who are privileged to administer deep sedation. Sedation practices may change as new sedation agents and delivery systems become available.

The level of sedation should be titrated to achieve a safe, comfortable, and technically successful procedure. The American Society of Anesthesiologists (2010), the American Society of Gastrointestinal Endoscopists (2008a, 2008b, 2009), the American Society for Gastrointestinal Endoscopy & Society of Gastroenterology Nurses and Associates, Inc. [ASGE/SGNA], 2004), and CMS (2011) have all published practice guidelines covering this topic.

Position

Moderate Sedation

The Society of Gastroenterology Nurses and Associates, Inc. supports the position that registered nurses trained and experienced in gastroenterology nursing and endoscopy can administer and maintain moderate sedation and analgesia by the order and supervision of a physician (ASGE/SGNA, 2004).

The GI registered nurse has education, training, and experience in endoscopy; knowledge of medications used and their safe administration; and the skills to assess, diagnose, intervene, and rescue patients (ASGE, 2008a). Since moderate sedation usually involves a combination of medications (i.e., sedative and narcotic), it is crucial for the GI registered nurse to understand incremental dosing, the synergistic effects of different drug classes, and the onset and peak of sedation agents (Fanti & Testoni, 2010). The GI registered nurse can be given responsibility for the administration of reversal agents prescribed by the physician. Basic Life Support (BLS) and/or ACLS are skills required for the GI registered nurse to respond to emergency situations during sedation complications.

The GI registered nurse is responsible for monitoring and assessing the patient receiving moderate sedation and analgesia throughout diagnostic and therapeutic endoscopic

procedures (Society of Gastroenterology Nurses and Associates, Inc. [SGNA], 2012). Many clinical scoring systems have been developed to assist in determining the level of sedation and patient responsiveness in order to promote quality care and patient safety (Jarzyna et al., 2011; Vargo et al., 2012). Automatic monitoring devices may enhance the ability to accurately assess the patient, but are no substitute for the GI registered nurse's watchful, educated assessment (ASGE/SGNA, 2004).

During moderate sedation, the GI registered nurse monitoring the patient may assist with minor, interruptible tasks once the patient's level of sedation/analgesia and vital signs have stabilized (ASGE/SGNA, 2004). Adequate monitoring of the patient's level of sedation must be maintained (ASA, 2010; ASGE, 2008a).

Because of the importance assigned to managing the patient who is receiving sedation and analgesia, a second nurse or associate is required to assist the physician with those procedures that are complicated either by the severity of the patient's illness and/or the complex technical requirements associated with advanced diagnostic and therapeutic procedures (ASGE, 2008a; SGNA, 2012).

Deep Sedation

Registered nurses and physicians must be aware of the limitations of federal and state regulations, state licensure, state nurse practice act, and current individual institutional policies regarding deep sedation practices.

Deep sedation may occur even when moderate sedation is targeted. The planned targeting of deep sedation raises specific regulatory concerns which require a higher level of competency in rescue techniques (Vargo et al., 2012). There must be procedures in place to rescue patients who are sedated deeper than intended (ASGE, 2008a; Amornyotin, 2013; Centers for Medicare and Medicaid Services [CMS], 2011).

General Considerations for Sedation Plan

SGNA supports the position that when an anesthesia professional is administering the sedation, the GI registered nurse will remain to provide continuity of care and assist the healthcare team (SGNA, 2012).

Special considerations related to the sedation plan may be needed for pediatric patients (American Academy of Pediatrics & American Academy Pediatric Dentistry [AAP/AAPD], 2006; ASGE, 2008b; Krauss & Green, 2006), the elderly (ASGE, 2013), pregnant and lactating women (ASGE, 2008a, 2012), patients with sleep apnea (ASA, 2006), and those who have had previous problems with anesthesia or sedation (ASGE, 2008a).

An anesthesia professional may need to provide sedation when patients have a history of alcohol or substance abuse, are morbidly obese, have neurological diseases or neuromuscular disorders, or when they are uncooperative or delirious (ASGE, 2008a; Cohen et al., 2007).

Endoscopic procedures that may require an anesthesia provider include endoscopic retrograde cholangiopancreatography, stent placement in the upper gastrointestinal tract, endoscopic ultrasound, and complex therapeutic procedures (e.g., endoscopic submucosal dissection, double-balloon endoscopy) (ASGE, 2008a; Cohen et al., 2007).

The goal of procedural sedation is safe, optimal patient outcomes. Emergency medication and resuscitative equipment must be immediately available wherever sedation is administered (ASGE, 2008a). Open, clear, and ongoing communication among the members of the endoscopy team is essential for the patient's safety and well-being. Endoscopy personnel must follow practice guidelines regarding procedure-related sedation, including documentation, training of staff, rescue equipment, emergency protocols, and quality programs (Cohen et al., 2007).

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Adopted by the SGNA Board of Directors January 1991. Reviewed 1995; Revised 1998, 2000, 2003, 2007, 2010, & 2013.

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